

Model: TLLA6G18G-39-20
Low Noise Amplifier
6-18GHz, NF:2.0dB, Gain:39dB, P1dB:20dBm
Feature:

- Ultra Wide Band: 6-18GHz
- Gain: 39dB Min
- Noise Figure: 2.0dB Max
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Electrical Specifications:

| Parameter | Min | Typ | Max | Units |
|-------------------|------|------|-----|-------|
| Frequency range | 6-18 | | | GHz |
| Gain | 39 | 42 | | dB |
| Gain Flatness | | ±2.0 | | dB |
| Noise Figure | | | 2 | dB |
| Output P1dB | 20 | | | dBm |
| Input VSWR | | 2 | | :1 |
| Output VSWR | | 2 | | :1 |
| DC Voltage | | 12 | | V DC |
| DC Supply Current | | | 100 | mA |
| Impedance | 50 | | | Ohms |

Mechanical Specifications:

| Parameter | Value | Units |
|-------------------------|-----------------------|-------|
| Input /Output Connector | SMA Female/SMA Female | |
| DC Bias | Solder Pin | |
| Size | 44.8*29.2*11 | mm |
| Weight | / | g |

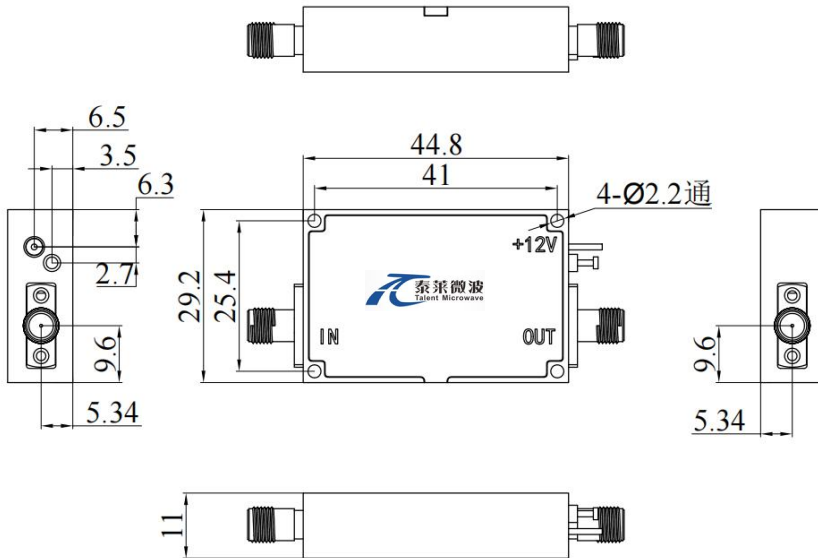
Absolute Maximum Ratings:

| Parameter | Value |
|-----------------------|----------------------|
| Supply Bias Voltage | +15V |
| RF Input Power | 18 dBm |
| ESD sensitivity (HBm) | Class 0, passed 150V |


**Available 220V System
Benchtop Amplifier**

Outline Drawing:

Unit: mm(inches)



*****Heat Sink Required During Operation**



OBSERVE PRECAUTIONS
ELECTROSTATIC SENSITIVE
DEVICES

Environmental Conditions:

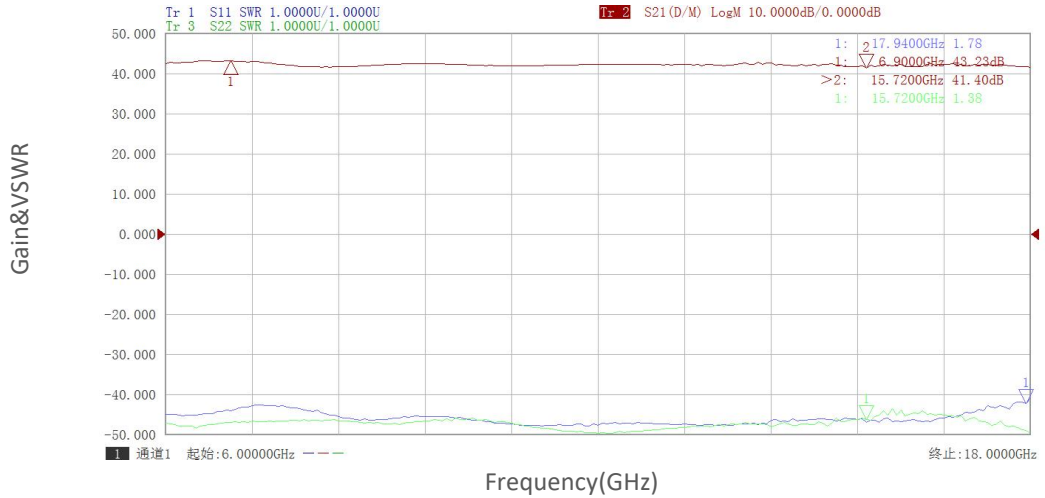
| Parameter | Min | Typ | Max | Units |
|---------------------------------|---|-----|------|-------|
| Operating Temperature | -25 | | +85 | °C |
| Non-operating Temperature | -55 | | +125 | °C |
| Relative humidity | | 95 | | % |
| Altitude | 50,000 | | | feet |
| Shock / Vibration(MIL-STD-810F) | 25g rms (15 degree 2KHz) endurance, 1 hour per axis | | | |
| Shock(non operating) | 20G for 11msc half sin wave,3 axis both directions | | | |

Ordering Information:

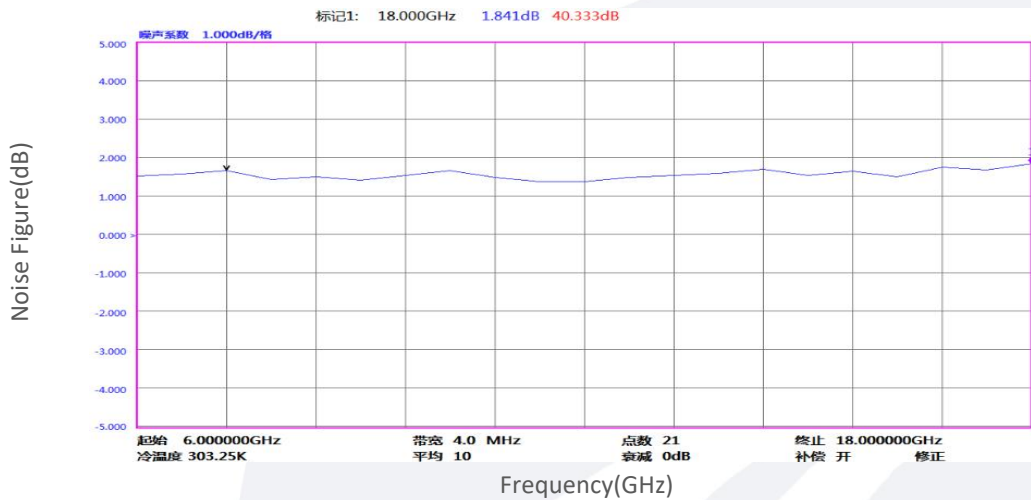
| Part Number | Description | Revision |
|--------------------|--|----------|
| TLLA6G18G-39-20 | Low Noise Amplifier, 6-18GHz, Noise Figure:2.0dB, Gain:39 dB,P1dB:20dBm,+12V DC,Without Heatsink | Rev.1.1 |
| TLLA6G18G-39-20-HS | Low Noise Amplifier, 6-18GHz, Noise Figure:2.0dB, Gain:39 dB,P1dB:20dBm,+12V DC,With Heatsink | Rev.1.1 |

Typical Performance Data:

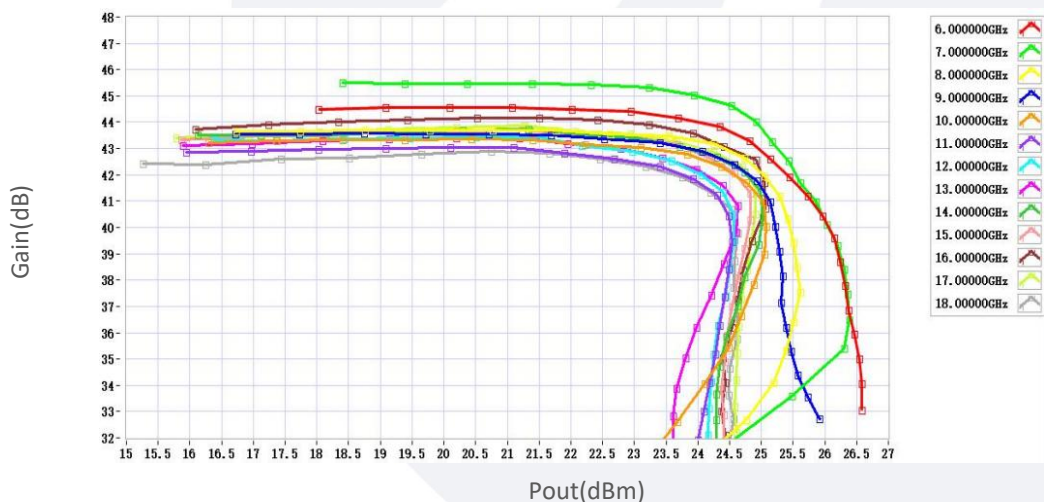
Gain&VSWR vs Frequency



Noise Figure vs Frequency

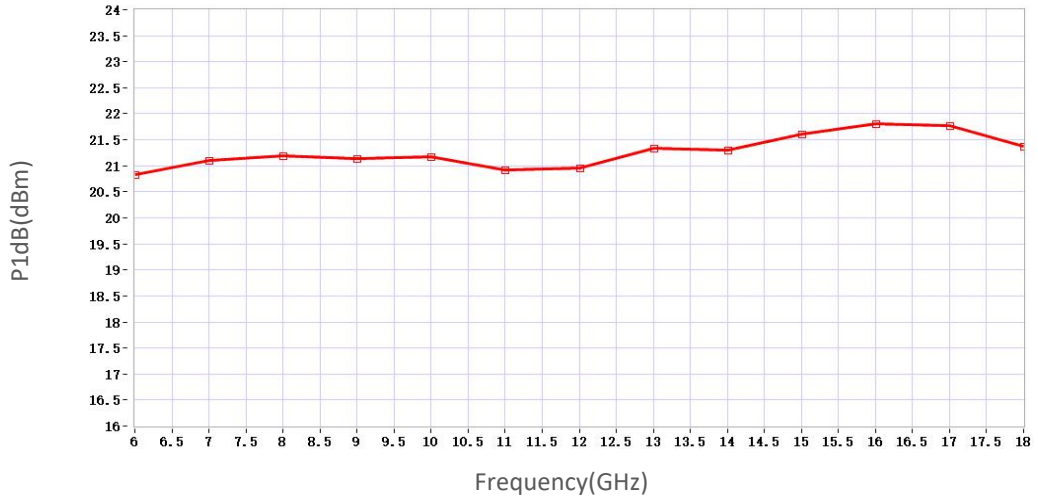


Gain vs Output Power

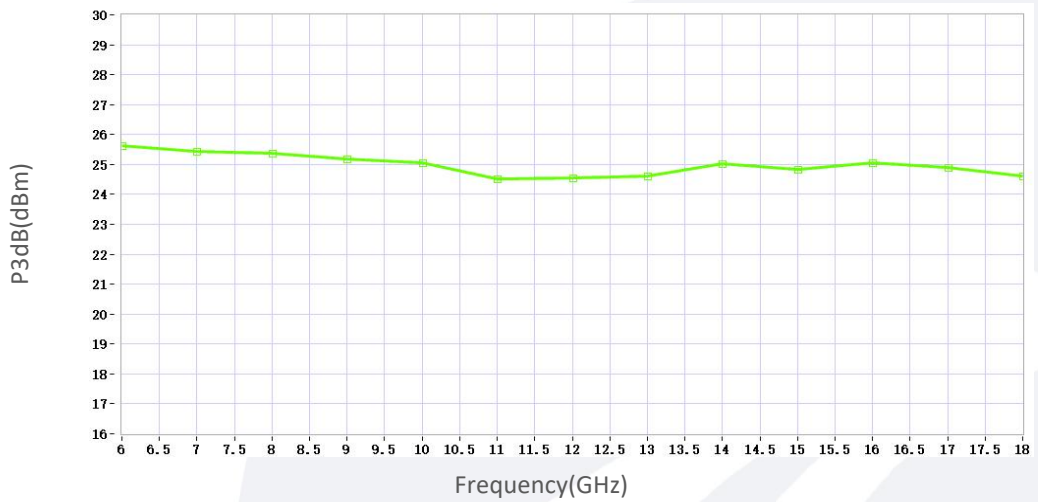


Typical Performance Data:

P1dB vs Frequency



P3dB vs Frequency



Psat vs Frequency

